

AMENDMENTS TO THE CLAIMS

Applicant submits below a complete listing of the current claims, including marked-up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing. This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A system for discovering and connecting to a preferred remote ~~Bluetooth~~-device by a local ~~Bluetooth~~-device, the system comprising tangible computer-readable media having:

an inquiry scan cache that is refreshed by a periodic inquiry scan;

a page scan cache that is refreshed by way of an attempt to connect to ~~the~~-at least one preferred remote ~~Bluetooth~~ device; and

a list of visible remote ~~Bluetooth~~-devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local ~~Bluetooth~~-device successfully contacts by way of a ~~periodic page scan performed more frequently than the periodic inquiry scan.~~

2. (Currently Amended) The system of claim 1 wherein the ~~preferred remote Bluetooth~~-device provides a Network Access Point (NAP) service.

3. (Currently Amended) The system of claim 1 wherein the ~~preferred remote Bluetooth~~-device provides a Group Ad-hoc Network (GN) service.

4. (Currently Amended) The system of claim 1, further comprising an automatic configuration service component that polls for the list of visible remote ~~Bluetooth~~-devices and the page scan is performed in response to the configuration service polling for the list.

5. (Original) The system of claim 1 wherein the page scan cache holds a finite number of entries and is associated with an expiration policy.

6. (Currently Amended) The system of claim 1 wherein the inquiry scan cache is additionally updated by way of an attempt by a remote Bluetooth device to connect to the local Bluetooth device.

7. (Currently Amended) A method for discovering and connecting to a preferred remote Bluetooth device by a local Bluetooth device based on a list of visible remote devices, the method comprising:

prior to receipt of a request for the list of visible remote devices:

updating an inquiry scan cache by way of a periodic inquiry scan;

updating a page scan cache with a corresponding entry in response to an attempt is made to connect to the preferred a remote Bluetooth device; updating a page scan cache with a corresponding entry; and

periodically, and more frequently than the periodic inquiry scan in response to a request for the list, forming the a list of visible remote Bluetooth devices by combining at least a portion of the page scan cache with the inquiry scan cache.

8. (Currently Amended) The method of claim 7 wherein forming the list of visible remote Bluetooth devices further comprises:

for each entry in the page scan cache, performing a page scan, and, if the page scan was successful, adding the entry to the list of visible remote Bluetooth devices; and concatenating entries in the inquiry scan cache to the list of visible remote Bluetooth devices.

9. (Original) The method of claim 7 wherein the page scan cache holds a finite number of entries, the method further comprising, for each entry added to the page scan cache:

setting an expiration time for the entry;

if the periodic inquiry scan does not reveal the entry, reducing the expiration time; and

if the expiration time has occurred, removing the entry from the page scan cache.

10. (Currently Amended) The method of claim 7, further comprising:

if a remote Bluetooth device attempts to connect to the local Bluetooth device, adding an entry for the remote Bluetooth device to the inquiry scan cache.

11. (Currently Amended) The method of claim 7 wherein the ~~preferred-remote Bluetooth device~~ provides a Bluetooth NAP service.

12. (Currently Amended) The method of claim 7 wherein the ~~preferred-remote Bluetooth device~~ provides a Bluetooth GN service.

13. (Currently Amended) The method of claim 7 wherein forming a list of visible remote ~~Bluetooth devices~~ is in response to polling by an automatic configuration service.

14. (Currently Amended) A computer-readable medium storing instructions implementing a method for discovering and connecting to a remote Bluetooth device by a local Bluetooth device, the method comprising:

updating an inquiry scan cache by way of a periodic inquiry scan;

~~if in response to an attempt is made to connect to the preferred-remote Bluetooth device,~~
updating a page scan cache with a corresponding entry; and

~~periodically, and more frequently than the periodic inquiry scan,~~ forming a list of visible remote Bluetooth devices comprising a combination of entries from the inquiry scan cache and the page scan cache.

15. (Original) The computer-readable medium of claim 14 wherein forming the list of visible remote Bluetooth devices further comprises:

for each entry in the page scan cache, performing a page scan, and, if the page scan was successful, adding the entry to the list of visible remote Bluetooth devices; and

concatenating entries in the inquiry scan cache to the list of visible remote Bluetooth devices.

16. (Original) The computer-readable medium of claim 14, further comprising, for each entry added to the page scan cache:

setting an expiration time for the entry;

if the periodic inquiry scan does not reveal the entry, reducing the expiration time; and

if the expiration time has occurred, removing the entry from the page scan cache.

17. (Original) The computer-readable medium of claim 14, further comprising:
if a remote Bluetooth device attempts to connect to the local Bluetooth device, adding an entry for the remote Bluetooth device to the inquiry scan cache.

18. (Currently Amended) Computer-readable media storing one or more modules implementing a system for execution on a local Bluetooth device for discovering and connecting to a preferred remote Bluetooth device by a local Bluetooth device, comprising:

an inquiry scan cache that is refreshed by a periodic inquiry scan ~~an attempt to connect to the local Bluetooth device by the remote Bluetooth device~~;

a page scan cache that is refreshed by way of an attempt to connect to the preferred remote Bluetooth device; and

a list of visible remote Bluetooth devices comprising entries in the inquiry scan cache, concatenated with each entry in the page scan cache that the local Bluetooth device successfully contacts by way of a periodic page scan ~~performed more frequently than the periodic inquiry scan~~.

19. (Currently amended) The computer-readable media of claim 18, wherein the local Bluetooth device comprises an operating system adapted to execute software components in either a user-mode or a kernel-mode, and the computer-readable medium further comprising comprises a user-mode Bluetooth PAN service component.

20. (Currently amended) The computer-readable media of claim 19, wherein the local Bluetooth device comprises an operating system adapted to execute software components in either a user-mode or a kernel-mode, and the computer-readable medium further comprising comprises a kernel-mode Bluetooth PAN driver component.

21. (Original) The computer-readable media of claim 18, further comprising an automatic configuration service component that polls for the list of visible remote Bluetooth devices.